

Serial No. 09/651,783

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IN THE SPECIFICATION

Please rewrite the paragraph beginning at page 5, line 10 as follows:

The cyclone type mist separator is an apparatus for removing small solid particles or droplets in gas stream using a centrifugal force. Schematic illustrations of the cyclone type separator are indicated in FIG. 2A and FIG. 2B. FIG. 2A is a plan view, and FIG. 2B is a side cross section. In accordance with the cyclone type mist separator 21, the gas containing mist is introduced into inside of the cyclone through the gas inlet 22 with a high speed. The mist introduced into the inside of the cyclone is driven in a direction toward outside by the centrifugal force, and collided with the inner wall 23 of the cylinder. The mist collided with the inner wall 23 is exhausted from a liquid waste outlet 24 at the bottom portion of the cylinder. The gas removed the mist is flowed upwards through the inner cylinder 26, and released from the upper gas exhaust outlet. The liquid contained in the gas flowed through the inner cylinder 26 is exhausted from the liquid outlet 25. The size of the cyclone (the size of the portion at the maximum diameter of the inner wall 23) is desirably decided depending on the diameter of the droplet to be removed. If the inner diameter

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of the gas inlet 22 is small and velocity of the gas at the inlet is fast, the centrifugal force becomes large, and small mist can be removed. For instance, in order to remove the mist of approximately 1 μm , the diameter of the gas inlet is desirably made approximately 1 cm, and the gas velocity at the inlet is made approximately 20 m/sec. Preferably, the velocity of the exhaust of the water-washed gas at the inlet of the cyclone is from 10 to 30 meters per second. A high mist removal rate can be obtained by setting the condition in the range as above. Although the mist removal rate is increased as the gas velocity is increased, pressure loss is also increased. The material of the cyclone is desirably vinyl chloride, acrylate resin, and the like, which are superior in corrosion resistance.

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